

Claims

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A drive arrangement for a conveying device for the conveying of a flowing medium, particularly air or fluid, where the drive arrangement contains a drive engine whose rotational speed can be varied, an auxiliary motor that can be controlled continuously and a summing gearbox where the summing gearbox is connected on its output side with the conveying device and on its input side with the drive engine and the auxiliary motor, the drive arrangement further having a control unit that controls the auxiliary motor, at least one sensor for the measurement of at least one magnitude of the condition of the flowing medium and wherein the conveying performance of the conveying device can be controlled or regulated by the control unit as a function of at least one magnitude of the condition of the medium.
2. A drive arrangement according to claim 1, wherein the summing gearbox is a planetary summing gearbox.
3. A drive arrangement according to claim 2, wherein the drive engine is connected with an internal gear, the auxiliary motor is connected with a sun gear and the conveying device is connected with a planet carrier of the planetary summing gearbox.
4. A drive arrangement according to claim 1, wherein a gear ratio stage is arranged between the drive engine and the drive engine side input of the summing gearbox arranged for a gear ratio increase or a gear ratio reduction or a reversal of the direction of rotation of the drive.
5. A drive arrangement according to claim 1, wherein the conveying device is a pump or a blower, particularly for the conveying of oil or coolant or for the conveying of

air.

6. A drive arrangement according to claim 1, wherein at least one sensor is arranged for the measurement of at least one magnitude of the condition of the medium, a sensor for the measurement of the pressure and/or the temperature and/or the amount of flow and/or the velocity of flow of the flowing medium.

7. A drive arrangement according to claim 6, wherein the drive arrangement further includes at least one sensor for the measurement of the rotational speed of the drive engine and wherein the conveying performance of the conveying device can be controlled or regulated by controlling the auxiliary motor as a function of at least one magnitude of the condition of the medium and the rotational speed of the drive engine.

8. A drive arrangement according to claim 7, wherein the conveying performance of the conveying device can be controlled or regulated by controlling the auxiliary motor according to the input of a conveying performance map as a function of the temperature of the flowing medium and the rotational speed of the drive engine.

9. A drive arrangement according to claim 7, wherein the conveying performance of the conveying device can be controlled or regulated by the control of the auxiliary motor as a function of the target value of the condition, preferably a target pressure of the flowing medium or a condition target value curve depending on the rotational speed of the drive engine, preferably a target pressure curve of the flowing medium.

10. A drive arrangement according to claim 1, wherein a free-wheeling device is arranged between the auxiliary motor and the summing gearbox which absorbs a torque applied to the auxiliary motor.